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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,085	10/04/2001	Wayne Ernest Conrad	5562-800	9520

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EXAMINER

CHIESA, RICHARD L

ART UNIT

PAPER NUMBER

1724

DATE MAILED: 01/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/970,085

Applicant(s)

CONRAD ET AL.

Examiner

Richard L. Chiesa

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1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) 5,9,10,14-16,20,21,23,24 and 29-59 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-8,11-13,17-19,22 and 25-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-59 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on December 9, 2002. These drawings have been approved by the PTO Draftsperson.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Election/Restrictions

3. Applicants' election without traverse of species B (Figure 12) in Paper No. 9, filed on December 9, 2002 is acknowledged.

4. Claims 5, 9, 10, 14-16, 20, 21, 23, 24, and 29-59 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected species. Election was made **without** traverse in Paper No. 9, filed on December 9, 2002. Applicants listed 35, 36, 49, and 50 as being readable on the elected species. However, this is impossible because these claims depend from either one of independent claims 29 and 47, which are not readable upon the elected species.

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Specification

5. The disclosure is objected to because of the following informalities: (A) The phrase “a by” (page 21, line 9) should apparently be changed to --as by--. (B) The numeral “50” (page 24, line 14) should apparently be changed to --11--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. Claims 1-4, 6-8, 11-13, 17-19, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. More specifically, the reasons for this rejection are: (A) Claim 1 recites the limitation "the electronic filter" in line 9. There is insufficient antecedent basis for this limitation in the claim. Apparently, the phrase --an electronic filter with-- should be inserted between “comprising” and “a” in the first line of clause (b). (B) Claim 17 recites the limitation "each electrically insulating layer" in line 7. There is insufficient antecedent basis for this limitation in the claim. Apparently, the phrase --electrically insulating-- should be inserted between “dielectric” and “layer” in the first line of clause (b).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicants are advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-4, 6-8, 11-13, 17-19, 22, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inculet ('168) in view of Frey et al. Inculet ('168) discloses a vacuum cleaner apparatus and method (note Figures 1-6) with spaced apart electrically conductive metal plate members 32, 34, 36, 60, 62, 68, 70, and porous, nonconductive dielectric layer members 64, 72, 74, 76 (note col. 1, line 10 to col. 4, line 21, and col. 5, line 8 to col. 9, line 56) with triboelectric production substantially as claimed. It would appear that Inculet ('168) may not explicitly mention the uses of a vacuum cleaner head, convoluted air flow path, cyclone, or the members positioned sequentially. In any case, Frey et al (note Figures 1, 6-9) teach the well-known uses of a vacuum cleaner head A, convoluted air flow path P, cyclone C, and filtering members and/or layers 30, 80, 60 positioned sequentially in a vacuum cleaner apparatus and method for the purpose of handling a wide variety of airborne particles (note col. 2, lines 20-28). Consequently, it would have been readily obvious to one having ordinary skill in the art to employ these

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expedients in the Inculet ('168) vacuum cleaner apparatus and method in order to facilitate the removal of a wide range of airborne pollutants as taught by Frey et al.

Allowable Subject Matter

10. Claim 1 would be allowable if: (A) rewritten or amended to overcome the rejection under 35 U.S.C. 112, second paragraph, set forth in this Office action, (B) included the limitations now contained in dependent claims 2, 4, and 7, and (C) defined the cyclone as being located upstream of the electronic filter.

11. If applicants adopt the claim language suggested by the examiner in paragraph 10 above, applicants should review all dependent claims and amend them in order to maintain consistent terminology and avoid duplicate claims.

12. As allowable subject matter has been indicated, applicants' reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. These references have been cited as art of interest to show other vacuum cleaners.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard L. Chiesa whose telephone number is (703) 308-3791.

The fax phone number for Art Unit 1724 where this application is assigned is (703) 305-7718.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0661.

January 8, 2003

Richard L. Chiesa

**Richard L. Chiesa
Primary Examiner
Art Unit 1724**

Jan. 8, 2003